IN THE DRAWINGS:

Please amend Fig. 9 to include the legend "Prior Art". A replacement drawings making this amendment to Fig. 9 is enclosed herewith.

REMARKS

I.   Introduction

In response to the pending Office Action, Applicants have cancelled claims 9-11, without

prejudice, and amended claims 1, 3, 5-8, 13, 15, 17, 19 and 20 so as to address the rejection of

the claims under 35 U.S.C. § 112, second paragraph, and to further clarify the intended subject

matter of the present invention. In addition, Fig. 9 has been amended to include the legend

"Prior Art". No new matter has been added.

For the reasons set forth below, it is respectfully submitted that all pending claims are

patentable over the cited prior art references.

II.   The Rejection Of The Claims Under 35 U.S.C. § 112

Claims 1-8, 11, 13 and 15-19 were rejected under 35 U.S.C. § 112, second paragraph. In

response to this rejection Applicants have amended the claims to as to address the issues raised

in the Office Action, which were directed to improper antecedent basis for various claim

elements. The foregoing amendments to the claims address the issues raised in the Office

Action. It is respectfully submitted that as amended all pending claims satisfy the requirements

of 35 U.S.C. § 112.

III.   The Rejection Of The Claims Under 35 U.S.C. § 102

Claims 1-20 were rejected under 35 U.S.C. § 103 as being obvious over the Applicants'

Admitted Prior Art (AAPA) in view of USP Pub. No. 2003/0101311 to Chang and further in

view of USP No. 6,081,149 to Veendrick. For the reasons set forth below, it is respectfully

submitted that the pending claims are not rendered obvious by the AAPA, Chang or Veendrick

either taken alone or in combination with one another.

As set forth in detail in the specification, the present invention provides a data transmission system that allows for a reduction in power consumption in devices capable of processing data corresponding to IEEE 1394 standards for digital AV equipment and data corresponding to IEEE 1394 standards for PC oriented equipment. As explained on page 1, lines 18-23 of the specification, the IEEE 1394 protocol utilized for AV oriented equipment (isochronous transmission) is different from the IEEE 1394 protocol utilized for PC oriented equipment (asynchronous transmission). In order for devices to utilize either protocol, LSIs have been provided with a plurality of protocol circuits, each of which corresponds to a given protocol, such as AV oriented or PC oriented. In operation, the protocol circuit to be utilized at a given time is governed by the type of data to be transmitted (i.e., AV oriented or PC oriented).

The present invention allows a reduction in the power consumption of such devices by turning off the clock supplied to protocol circuits which are not in use. Thus, for example, if in the given device, PC oriented data is currently being transmitted, the clock signal to the AV oriented protocol circuit can be shut off so as to reduce power consumption. Importantly, the present invention determines whether to shut off or turn on a clock signal by analyzing the packet of data to be transmitted/received and/or the control information from the interface control circuit. Thus, in accordance with the present invention, a packet transmitted to/from an interface control circuit is analyzed to specify/determine which protocol circuit will be utilized, and the clock signals for the protocol circuits which are not to be utilized are shut off, thereby resulting in a reduction of power consumption.

With regard to the pending claims, each of claims 1 and 19 recite a determination means for obtaining the control information and/or the packet information, and for determining which protocol circuit will be utilized for the given transmission/reception. Claims 12 and 20 are corresponding method claims, respectively, and recite similar elements.

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Turning to the cited prior art references, it is acknowledged that neither the AAPA nor Veendrick disclose the recited determination means of the present invention. Chang is relied upon for this purpose. However, upon review it is clear that Chang does not disclose the recited determination means. Specifically, as set forth in paragraph [0076] of Chang, which appears to be the only paragraph of Chang that discusses means for reducing power consumption, Chang only discloses reducing clock speed or turning off functional blocks based on the amount of bus traffic. In other words, **Chang only discloses adjusting power consumption <u>based on the</u> <u>*amount* of data</u> to be transmitted.** Chang does not disclose or suggest, for example, determining the type of data to be transmitted and then utilizing this information to determine which protocol circuit should be provided with a clock signal. As noted above, the determination means of the present invention analyzes the control information or packet information to determine which protocol circuit is required and then provides a clock signal to the required protocol circuit based on the determination. Indeed, the amount of data to be transmitted is not relevant to the determination means of the present invention.

The foregoing represents a significant distinction between the present invention and Chang because even assuming *arguendo* that the Chang was properly combinable with the AAPA and Veendrick, assuming there was a large amount of data to be transmitted, in Chang there would be no power reduction provided, as Chang merely discloses utilizing the amount of data to be transmitted as the basis for reducing clock speed to the functional circuits. However, in the present invention, even if there was a large amount of AV oriented data to be transmitted, the clock circuit to the PC oriented protocol circuit is still shut off.

As such, it is clear that Chang does not disclose or suggest the determination means of the present invention, which determines which protocol circuit to activate based on the interface control information or the packet information (and not on the amount of data to be transmitted as

taught in Chang). Moreover, as Chang does not even mention the problems associated with the IEEE 1394 bus interface, which are solved by the present invention, it cannot be properly concluded that the determination means of the present invention is merely an obvious modification of Chang, as such a conclusion would clearly be a case of impermissible hindsight utilizing the current specification to reconstruct the claimed invention.

Accordingly, as each and every limitation must be disclosed or suggested by the prior art references in order to establish a prima facie case of obviousness (*see*, M.P.E.P. § 2143.03), and the combination of the AAPA, Chang and Veendrick fails to do so for at least the foregoing reasons, it is respectfully submitted that the pending claims are patentable over the cited prior art references.

In addition, it is also known that the fact that the prior art could be modified so as to result in the combination defined by the claims at bar would not have made the modification obvious unless the prior art suggests the desirability of the modification. *In re Deminski*, 796 F.2d 436, 230 USPQ 313 (Fed. Cir. 1986).

Moreover, recognizing after the fact that such a modification would provide an improvement or advantage, without suggestion thereof by the prior art, rather than dictating a conclusion of obviousness, is an indication of improper application of hindsight considerations. Simplicity and hindsight are not proper criteria for resolving obviousness. *In re Warner*, 379 F.2d 1011, 154, USPQ 173 (CCPA 1967).

It is only Applicants' disclosure that discloses a IEEE 1394 interface device wherein the control information or packet information is utilized to determine which of a plurality of protocol circuits is required for performing the given transmission/reception of data and then provides a clock signal to the required protocol circuit based on the determination. Neither Chang nor Veendrick describe or suggest such features. Moreover, neither Chang nor Veendrick even

acknowledge the problems solved by the present invention. Thus, the only motivation of record for the proposed modification of the device of the AAPA, Chang or Veendrick to arrive at the claimed invention is found in Applicants' disclosure which, of course, may not properly be relied upon to support the ultimate legal conclusion of obviousness under 35 U.S.C. §103. *Panduit Corp. v. Dennison Mfg. Co.*, 810 F.2d 1561, 227 1 USPQ2d 1593 (Fed. Cir. 1987).

For all of the foregoing reasons, it is respectfully submitted that the pending claims are patentable over the cited prior art references.

IV. All Dependent Claims Are Allowable Because The Independent Claims From Which They Depend Are Allowable

Under Federal Circuit guidelines, a dependent claim is nonobvious if the independent claim upon which it depends is allowable because all the limitations of the independent claim are contained in the dependent claims, *Hartness International Inc. v. Simplimatic Engineering Co.*, 819 F.2d at 1100, 1108 (Fed. Cir. 1987). Accordingly, as the pending independent claims are patentable for the reasons set forth above, it is respectfully submitted that all pending dependent claims are also in condition for allowance.

V. Request For Notice Of Allowance

Having fully responded to all matters raised in the Office Action, Applicants submit that all claims are in condition for allowance, an indication for which is respectfully solicited.

If there are any outstanding issues that might be resolved by an interview or an

Examiner's amendment, the Examiner is requested to call Applicants' attorney at the telephone

number shown below.

Respectfully submitted,

McDERMOTT WILL & EMERY LLP
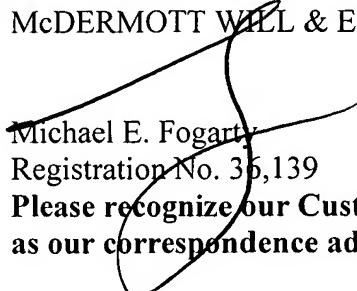
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WDC99 1254806-1.060188.0691

PRIOR ART

FIG. 9